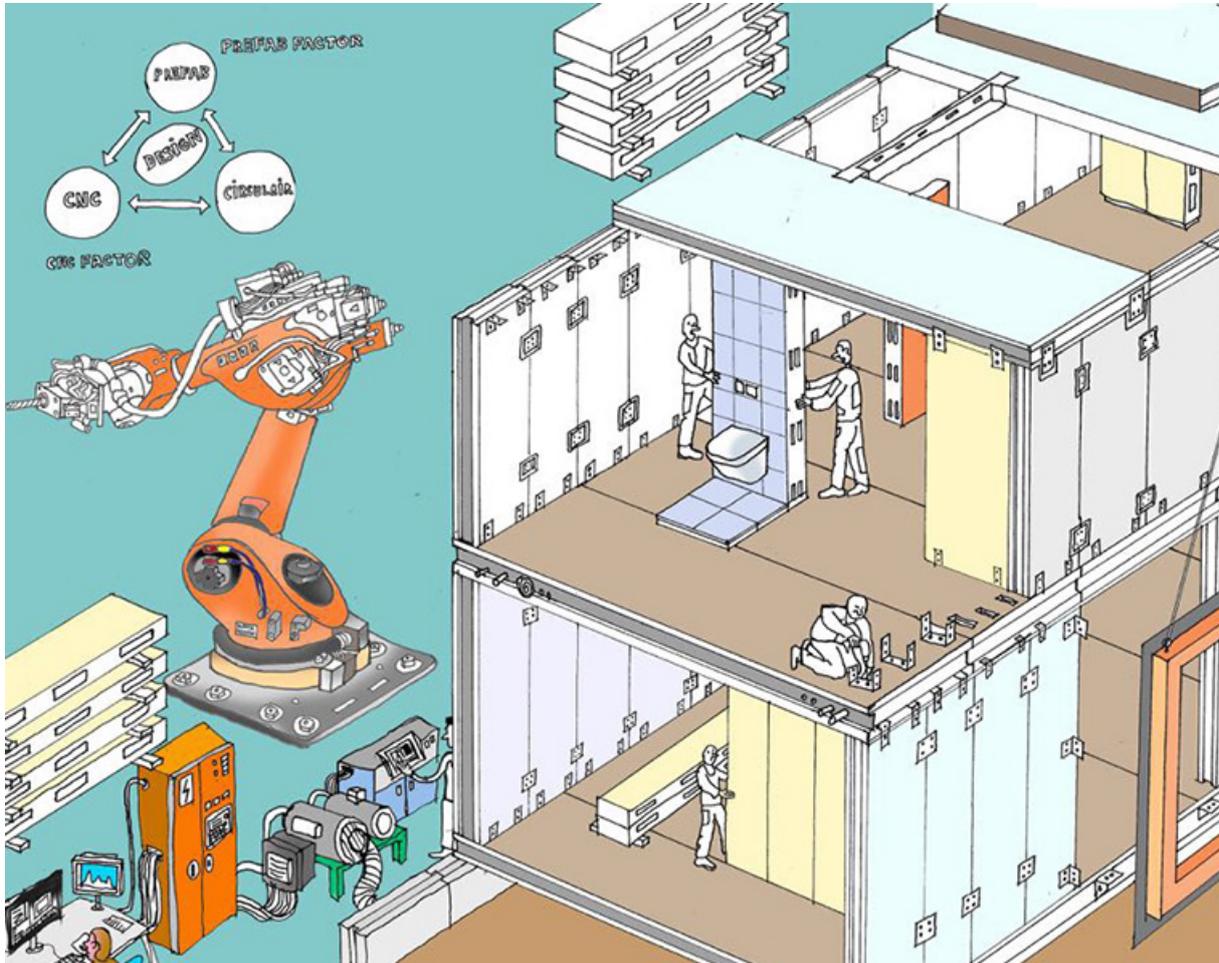


Architectural Engineering

MSc3/4 Open Building



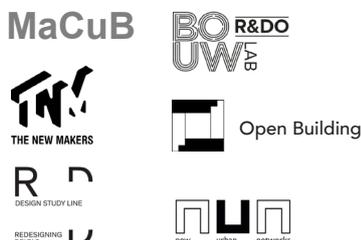
Autumn semester 2022

Tutors:

Thijs Asselbergs
Mauro Parravicini
Roel van de Pas
Mo Smit
Anne Snijders

Code	AR3AE100
Credits	55 ECTS
Location	Various
Excursion	Yes
Costs	

Collaborators:



The global need for more housing requires a smart and integrated approach. For example, the Netherlands will need 1 million homes by 2030. With which systems do we deal; how can we design for disassembly with components; how do architecture, technology and flexible use go together? How do we use robots and CNC manufacturing techniques for this purpose? How do we integrate the influence of users; can we make better adaptable, smart and energy efficient housing systems? Are we able to make affordable circular homes which are part of valuable neighbourhoods?

We are working on a catalogue of Mass Customized Building Systems (MaCuB). Collaborations are sought with the research program of Delft University of Technology for the 1 Million Homes issue, The New Makers, Bouwlab R&Do, Open Building and various manufacturers of industrialized building systems.

Architectural Engineering further participates within the cross domain

research and education programme Redesigning Deltas (organised by Delta Urbanism at BK TU Delft), which offers aE students the challenging intervention context of the Dutch Delta for their graduation projects with a strong focus on living with water.

Within the Caribbean context Architectural Engineering collaborates with amongst others the University of Amsterdam, KITLV Leiden and the University of St. Maarten in the Islanders at the Helm research project, focussing on housing solutions for extreme climate challenges, social inequality and circularity. In Indonesia we have a longstanding collaboration with Institut Teknologi Bandung specifically focussing on the development of circular settlements.

See also:

<https://www.tudelft.nl/bk/onderzoek/>
<https://www.bouwlab.com/>
<https://www.openbuilding.co>
<https://www.collegevanrijksadviseurs.nl/projecten/flexwonen>
<https://www.newurbannetworks.eu/>

Architectural Engineering

MSc3/4 Harvest



Aerial picture from Google Earth, fragment of the Dutch delta, Dordrecht

Tutors:

Thijs Asselbergs
Mauro Parravicini
Roel van de Pas
Mo Smit
Anne Snijders

Code	AR3AE100
Credits	55 ECTS
Location	Various
Excursion	Yes
Costs	-

Collaborators:



Urbanism



The question how circular design strategies and principles can contribute to valuable landscapes, villages or urban neighbourhoods is central to the Harvest assignment. Students work on nature-inclusive architectural design solutions, using the energy transition as a leverage for a renewed and healthy living environment. In combination with the spatial potential of the intervention area itself, we work on design solutions that strengthen the social activity, economy and its spatial identity.

Within the Harvest assignment there is a strong focus on the development process as part of the design strategy. What does it mean for the process when the community, entrepreneurs and other stakeholders are involved in the development? How to deal with the specific culture and history of an existing area? Which forms of synergy are possible between different people, animals, cycles (water, energy, waste, food and materials) and spatial ingredients? Which value(s) does an holistic circular design approach ultimately yield for the built environment?

Within the Harvest assignment Architectural Engineering works together with Urbanism and Landscape Architecture through all scales on integral designs. The coming years the Harvest assignment is connected to the cross domain research and education programme Redesigning Deltas (organised by Delta Urbanism at BK TU Delft), which offers aE students the challenging intervention context of the Dutch Delta for their graduation projects, with a strong focus on living with water.

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